

Europa harbors possible ‘warm ice’

Tantalizing images of Jupiter’s moon Europa from NASA’s Galileo spacecraft indicate that “warm ice” or even liquid water may have existed, and perhaps still exists today beneath Europa’s cracked icy crust.

“These fantastic new images of an icy moon of Jupiter are reminiscent of the ice-covered Arctic Ocean on our planet,” said NASA Administrator Daniel S. Goldin. “The lack of craters, the cracks and signs of movement, all indicate that this might be young ice on a dynamic surface. It raises the possibility of a liquid ocean on Europa, the only other place in our solar system where we suspect such an ocean might exist.

“The pictures are exciting and compelling, but not conclusive. The potential for liquid water on Europa is an intriguing possibility, and

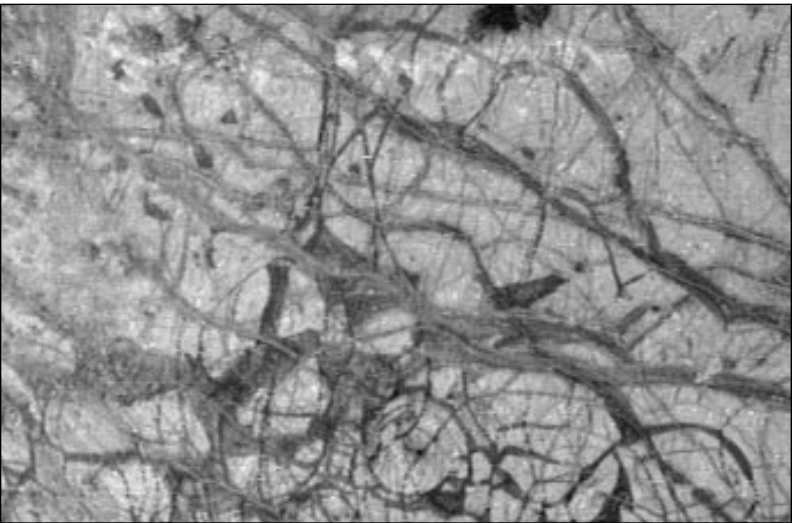
another step in our quest to explore the solar system, the stars, and the answer to the great mystery of whether life exists anywhere else in the cosmos,” Goldin said.

Galileo scientists are poring over images that show places on Europa resembling ice floes in Earth’s polar regions, along with suggestions of geyser-like eruptions and details of long dark bands centered with white stripes that stretch like interstate highways across Europa’s face.

“This moon is a marvelous place,” said Ronald Greeley, an imaging scientist and a geologist at Arizona State University. “We’re seeing evidence of a lot of geological activity on Europa. In some areas, the ice is broken up into large pieces that have shifted away from one another, but obviously fit together like a jigsaw puzzle,” Greeley said. “This

shows the ice crust has been or still is lubricated from below by warm ice or maybe even liquid water.”

The results bring scientists closer to determining whether Europa has “niches” warm and wet enough to host life, Greeley said. Europa is about the size of Earth’s Moon and is covered with smooth white and brownish-tinted ice, instead of large craters like so many other bodies in the Solar System. Scientists believe its cracked cue-ball appearance is due to stressing caused by Jupiter’s strong gravity. They speculate that the warmth generated by tidal heating may have been sufficient to liquefy some portion of Europa’s icy covering. Europa has long been considered by scientists as one of the handful of places in the Solar System where primitive forms of life could possibly exist.



Jupiter’s moon Europa displays features in some areas resembling ice floes seen in Earth’s polar seas. Europa, about the size of Earth’s moon, has an icy crust that has been severely fractured, as indicated by the dark linear, curved and wedged-shaped bands. These fractures have broken the crust into plates and areas between are filled with material that is probably icy slush contaminated with rocky debris.

New training initiative to enhance secretarial skills

JSC has implemented a new training and development initiative for JSC secretaries.

Designed to focus on basic skills, this initiative outlines a comprehensive approach to training, enabling secretaries to become more versatile in their skills, remain proficient in leading edge office technologies and increase their competitiveness for future positions.

Members of senior staff, the secretarial council—comprised of directorate-level secretaries—and training coordinators were briefed in separate presentations on the newly designed training program. It includes a revamped training curriculum and a new program called the Communication Skills Building Blocks series. The new training curriculum emphasizes basic skills development, enhancement and refinement, and features required core courses as well as optional

supplemental courses.

The Communication Skills Building Blocks series is designed to ensure that secretaries possess the basic grammar and composition skills necessary to meet current and emerging demands. It consists of 14 three-hour modules, that all secretaries will be required to take. Those who feel they already possess the skills covered in one or more of the modules, may place out of courses by completing a skills assessment.

Nancy Garrick of the Human Resources Development Branch will be contacting organizations over the next several weeks to schedule secretaries for this series as well as to provide more information about the placing-out process. Employees who have questions regarding the new training and development initiative for JSC secretaries can call Garrick at x33076.

Two former employees die

Two former JSC employees, Scott Simpkinson and Carl Huss, died last week. Services for both were Wednesday.

Simpkinson died Aug. 8 after a lengthy illness. He was a former assistant program manager of the Apollo Spacecraft Program and author of several papers on the Apollo and Gemini programs. He received more than 30 awards for his extra efforts during the manned and unmanned U.S. space programs including NASA’s Outstanding Leadership Award and Exceptional Service Medal. He retired in 1982 after 38 years of service.

Donations may be made on Simpkinson’s behalf to Ed White Memorial Youth Center at P.O. Box

992 Seabrook, Texas 77586.

Carl Huss died Aug. 8 of natural causes in Nashville, Tenn., assisting the Confederate Air Force Gulf Coast Wing on its summer tour. Huss was the original retro fire officer in the Mercury Program. He also worked in the Mission Planning and Analysis Division. He retired from JSC as chief of the Institutional Data Systems Division in 1982. Huss earned many awards including the Presidential Medal of Freedom and NASA’s Outstanding Leadership Medal.

Donations on behalf of Huss may be made to the Confederate Air Force, Gulf Coast Wing c/o Jack Amuny 16323 Craighurst Houston, Texas 77059.

Langley gets new director

Jeremiah Creedon has been named director of NASA’s Langley Research Center.

“NASA is fortunate to have a man of Dr. Creedon’s caliber to take the helm of the Langley Research Center,” said NASA Administrator Daniel S. Goldin. “I am confident Dr. Creedon’s extensive experience and first-hand knowledge of aeronautics research will serve him well in this new position.”

Creedon succeeds Paul Holloway,

who after 36 years at Langley, announced that he would step down as director as soon as a replacement was found.

Creedon, 56, is the seventh director of Langley since the center was established in 1917. Prior to being named director, Creedon was director of the Airframe Systems Program Office. Until February 1996, he was director of the Aeronautics Program Group, a position he had held since February 1994.

NASA bowling league starts soon

The NASA mixed bowling league begins its 1996-97 season this month, running from Aug. 27-May 6.

The league, which currently bowls at 6 p.m. on Tuesdays at the Alpha Bowl on Bay Area Blvd., has a split-season with two 17-week halves. The winners of each half of the season bowl in a play-off to determine first and second place.

Last season the league was comprised of 18 teams with five bowlers per team. The majority of the league members are active or retired NASA employees or immediate family

members or contractors.

In this handicap league, prizes are awarded to the first, second and third place teams and to individuals for high series and high game. Point money also is awarded to each team based on total points won at the end of the season.

For more information, interested bowlers may contact any of the league officers for the upcoming season: President Dennis Perrin at x33134, Vice President Vanessa Buster at 282-3642 and Secretary/Treasurer Leona Kain at 282-2544.



JSC Photo by Benny Benavides

ASCANS ARRIVE—Forty-four astronaut candidates arrived at JSC Monday to begin a period of training and evaluation. This year’s class, the largest in the history of shuttle astronauts, consists of 10 pilot and 25 mission specialist candidates selected from more than 2,400 applicants. In addition, a cadre of international astronaut candidates, representing the Canadian, Japanese, Italian, French, German and European Space Agencies, are included in the ‘96 class. Following a year of evaluation and training, the astronauts will receive technical assignments within the Astronaut Office to further prepare them for shuttle flight assignments. Back row from left are, Christopher Loria, Umberto Guidoni of the Italian Space Agency, Christer Fuglesang of the European Space Agency, Mamoru Mohri of the Japanese Space Agency, Stephen Frick, John Herrington, Philippe Perrin of the French Space Agency, Paul Lockhart, Lee Morin, John Phillips, Donald Pettit, Scott Kelly, James Kelly, Paul Richards and Daniel Burbank. Middle row from left are Fernando Caldeiro, William McCool, Jeffrey Williams, Rex Walheim, Lisa Nowak, Soichi Noguchi of the Japanese Space Agency, Duane Carey, Charles Camarda, Richard Mastracchio, Daniel Tani, Piers Sellers, Mark Kelly, David Brown, Patrick Forrester, Michael Massimino and Gerhard Thiele of the German Space Agency. Front row from left are Charles Hobough, Edward Fincke, Stephanie Wilson, Laurel Clark, Heidemarie Stefanyshyn-Piper, Mark Polansky, Peggy Whitson, Yvonne Cagle, Joan Higginbotham, Steve MacLean and Julie Payette of the Canadian Space Agency and Sandra Magnus. Pedro Duque of the European Space Agency is not pictured.

Lucid, crew mates discuss life on Mars

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Lucid also said this week that the news of scientists discovering evidence of ancient life on Mars has her and her Mir 21 crew mates talking about the possibility of humans going there to investigate in person.

“When the ground told us, we were really excited,” Lucid said in an interview with CBS on Monday. “It filled up our whole conversation at supper time. We talked about the possibility of life on Mars, and understandably, our conversation turned to the possibility of taking trips to Mars, and how we hoped Americans and Russians and other nations will be able to work together and develop a means of making a trip. We think that would be absolutely fantastic.”

Lucid, Onufrienko and Usachev spent this week packing up their

experiments for the trip home and setting up experiments in preparation of the arrival of the Mir 22 crew.

Before Monday’s interview, Lucid had a chance to reflect on her mission, now in its 21st week.

“Things are going real well here on Mir. We are beginning to think about wrapping up this mission and getting ready for the next mission,” Lucid said. “We started off my phase of the flight with Quail eggs, developing little baby birds inside the eggs and watching the development, and we are ending up the flight growing wheat seeds. I think it is real interesting.”

Over the past three weeks, the Mir crew has set up the greenhouse needed to grow wheat seeds, installing sensors and probes, watering and testing the unit. The crew

planted the seeds Monday, and is already beginning to see results.

“We got the wheat seeds planted and now we can see the tiny little plants beginning to grow,” Lucid said.

The Mir 21 crew started work on the Greenhouse Experiment, originally planned for the next mission, so the plants can be harvested as originally scheduled. The experiment is designed to see how plants grow in microgravity.

Overall, Lucid and her crew mates are happy with the way their mission has turned out thus far.

“We finished up everything that was planned for this flight, and I think it always makes you feel really good to get everything finished up,” Lucid said. “And of course, right now, we are looking forward to the Mir crew that’s coming next week.”

Open house to feature Max-Q in Bldg. 9

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sessions by JSC’s astronauts, construction of a full-size model of a new generation moon lander and tours around the closed chambers where volunteers lived during a recently completed 30-day study to test methods of supporting human

life on long space expeditions.

The astronaut band, Max Q, also will perform amidst the shuttle mock-ups in Bldg. 9 at 1 p.m. and 3 p.m.

The JSC Open House coincides with the annual Ballunar Liftoff at nearby Space Center Houston. Ballunar Liftoff features dozens of

hot air balloons, parachute demonstrations and other attractions near JSC’s Rocket Park. It runs over three days beginning Aug. 23. Last year more than 70,000 people attended both events.

For more information on JSC’s Open House call x35111.